November 30, 2001

Mr. Philip Conarroe
Johns Manville International, Inc.
Post Office Box 428
Richmond, Indiana 47374

RE: 177-14315
Third Administrative Amendment to
Construction Permit 177-5873-00006

Dear Mr. Conarroe:

Johns Manville, International, Inc., was issued a construction permit on April 22, 1999 for a wool fiberglass insulation manufacturing plant. In your appeal dated March 1, 2001 you requested several revisions to the Second Administrative Amendment issued February 13, 2001. This third amendment to that permit addresses the items you raised. Pursuant to the provisions of 326 IAC 2-7-11, the permit is hereby administratively amended as follows:

1. The page numbering in the Second Administrative Amendment was different from the pages in the sources copy of the final construction permit. The construction permit being modified is shown with all changes and all pages to avoid any confusion with differing page numbers.

2. To avoid reference to Wayne County as nonattainment for particulates, which is no longer the case, the rule citation at the beginning of Conditions D.2.1 (b) and D.3.1 (b) will be edited to delete the reference to the rule's title. However, the limits remain the same. Also, the title to the table in D.3.1(b) was changes to specify that the limits are PM limits. Both conditions will be changed as follows:

D.2.1 Pollutant Emission Limitations

(b) Pursuant to 326 IAC 2-2-3(a)(3) (PSD Rules) and 326 IAC 6-1-14 ~~(Nonattainment Area Particulate Limitations)~~, the particulate matter (PM) emissions from each furnace shall comply with the following limitations:

D.3.1 Pollutant Emission Limitations

(b) Pursuant to 326 IAC 6-1-14 ~~(Nonattainment Area Particulate Limitations)~~, the particulate matter (PM) emissions from each manufacturing line shall comply with the following limitations:

Facility	**PM Emission Limitations** ~~Pollutant Limitations~~	
	tons/yr	gr/dscf
Line 2 Forming Process	58.3	0.02
Line 2 Curing Process	0	–
Line 3 Forming Process	123.6	0.02
Line 3 Curing Process	27.4	0.02

Facility	**PM Emission Limitations** ~~Pollutant Limitations~~	
	tons/yr	gr/dscf
Line 6 Forming Process	45.4	0.02
Line 6 Curing Process	6.2	0.02

3. To avoid the possibility of misunderstanding, the sulfur dioxide (SO2) limits in Condition D.3.1 (d) have been changed from "0" to "--". According to the Technical Support Document for PSD CP #177-5873-00006 the total source's potential SO2 emissions are 5.5 tons per year; therefore SO2 is not subject to PSD limits. The only source of sulfur in this process is the small quantity in natural gas. This change clarifies that an SO2 limit does not pertain as opposed to being limited at zero.

D.3.1 Pollutant Emission Limitations

(d) In order to avoid the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), each manufacturing line shall comply with the following limitations:

Facility	Pollutant Emission Limitations, lbs/hr	
	NOx	SO2
Line 2 Forming Process	2.03	~~0~~ --
Line 3 Forming Process	2.03	~~0~~ --
Line 3 Curing Process	1.51	~~0~~ --
Line 6 Cooling Process	0.25	~~0~~ --
Line 6 Forming Process	2.18	~~0~~ --
Line 6 Curing Process	0.84	~~0~~ --

4. The Second Administrative Amendment inadvertently reversed one of the changes of the First Administrative Amendment in Condition D.3.2. The cooling chamber is part of Line 6, not Line 3. Also, to clarify that bonded and unbonded product cannot be produced on the same line simultaneously, the production rate limitations for Lines 3 and 6 will be expressed simply in terms of glass rather than the combined rate of bonded and unbonded product. The production rate limitations in Conditions D.3.2 (b) and (c) will be revised as follows:

D.3.2 Operation Standards

The forming, curing, and cooling processes shall comply with the following limitations:

(b) Pursuant to 326 IAC 2-2-3(a)(3), Line 3 Forming~~,~~ **and** Curing~~, and Cooling~~ Process shall not exceed a ~~combined~~ glass production rate of ~~bonded and unbonded product of~~ 7,200 pounds per hour; and

(c) Pursuant to 326 IAC 2-2-3(a)(3), Line 6 Forming**,** ~~and~~ Curing, **and Cooling** Process shall not exceed a ~~combined~~ glass production rate of ~~bonded and unbonded product of~~ 4,000 pounds per hour.

5. To more specifically identify the production basis, the production rate limitations in Conditions D.3.2 (e) will be revised as follows:

D.3.2 Operation Standards

(e) The production of bonded product from Line 6 shall be limited to 6,240 tons **of glass** per year, rolled on a monthly basis, to demonstrate compliance with the PM and VOC emission limitations required by Operation Condition D.3.1(b).

6. The emission limitations chart in Condition D.3.4(a) will be restored to the chart as revised by the first administrative amendment. The chart will be revised as follows:

Stack	Process	PM/PM_{10}[1]	NO_x[2]	VOC	CO	HAP[3]
S2	Line 2 Forming Unbonded	3.70 lb/ton 0.02 gr/dscf	2.03 lbs/hr	6.78 lb/hr	21.0 lb/hr	
S2	Line 6 Forming~~, Curing~~ - UnBonded	3.70 lb/ton 0.02 gr/dscf	~~2.03~~ **2.18** lbs/hr	3.77 lb/hr	25.3 lb/hr	
S2	Line 6 Forming/Curing **/Cooling** - Bonded	~~9.83~~ **10.1** lb/ton 0.02 gr/dscf	~~3.02~~ **3.27** lbs/hr	10.2~~-~~ **6** lb/hr	~~26.5~~ **26.9** lb/hr	2.28 lb/hr Single HAP; 5.71 lb/hr Combined HAP
S3	Line 3 Forming - Unbonded	3.70 lb/ton 0.02 gr/dscf	2.03 lbs/hr	6.78 lb/hr	21.0 lb/hr	
S3	Line 3 Forming/ Curing~~/Cooling~~ - Bonded	~~3.04~~ **2.75** lb/ton 0.02 gr/dscf	~~4.0~~ **3.54** lbs/hr	~~23.6~~ **22.9** lb/hr	22.~~9~~ **2** lb/hr	2.28 lb/hr Single HAP; 5.71 lb/hr Combined HAP

7. On the Quarterly Report of production, the mailing address will be corrected to "P.O. Box 428, Richmond Indiana 47375-0428." The Quarterly Report of production will be revised as follows:

Indiana Department of Environmental Management
Office of Air ~~Management~~ Quality
Compliance ~~Data Section~~ Branch
Quarterly Report

Source Name: Johns Manville International, Inc.
Source Address: 814 Richmond Avenue, Richmond, Indiana 47374
Mailing Address: **P.O. Box 428** ~~814 Richmond Avenue~~, Richmond, Indiana **47375-0428** ~~47374~~
Permit No.: CP 177-5873-00006
Source/Facility: Lines 2, 3, and 6 Production Processes
Limits: Production Limits Required by Operation Condition D.3.2(d) and (e)

Year: _____

Month	Production Facility	Production this Month, tons	Production Last 12 Months, tons	Production Limit, tons/12 consecutive months
	Line 2 Unbonded			31,536
	Line 3 Unbonded			31,536

Month	Production Facility	Production this Month, tons	Production Last 12 Months, tons	Production Limit, tons/12 consecutive months
	Line 3 Bonded			
	Line 6 Unbonded			17,520
	Line 6 Bonded[1]			
	Line 2 Unbonded			31,536
	Line 3 Unbonded			31,536
	Line 3 Bonded			
	Line 6 Unbonded			17,520
	Line 6 Bonded[1]			
	Line 2 Unbonded			31,536
	Line 3 Unbonded			31,536
	Line 3 Bonded			
	Line 6 Unbonded			17,520
	Line 6 Bonded[1]			

[1] The production of bonded product from Line 6 shall be limited to 6,240 tons per year, rolled on a monthly basis

9 I certify that none of the hourly production limits established in Operation Conditions D.2.2, D.3.2, and D.4.2 of CP 177-5873 were exceeded this quarter.

Submitted by: _____ Date: _____
Title / Position: _____ Signature: _____

8. The PM limitation for the Line 6 Electric Melt Furnace in Condition D.2.1(b) will be revised as follows to reflect the change in the limit in 326 IAC 6-1-14:

D.2.1 Pollutant Emission Limitations

(b) Pursuant to 326 IAC 2-2-3(a)(3) (PSD Rules) and 326 IAC 6-1-14 ~~(Nonattainment Area Particulate Limitations)~~, the particulate matter (PM) emissions from each furnace shall comply with the following limitations:

Facility	PM/PM_{10} Emission Limitations	
	tons/yr	gr/dscf
Line 2 Melt Furnace	7.8	0.01
Line 3 Melt Furnace		0.01
Line 6 Melter	~~0.1~~ **3.9**	0.020

9. The Reporting Requirements condition in Section D.3 of the permit has been renumbered to avoid duplication of Condition D.3.9 (Record Keeping Requirement). Reporting Requirements are now Condition D.3.10.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

10. The plant manager has been changed to the new plant manager.

A.1 General Information [326 IAC 2-7-4(c)]

The Permittee owns and operates a wool fiberglass insulation manufacturing plant.

Responsible Official: ~~Robert W. Martin~~ **Emerson Bungard, Plant Manager**

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mike Heaney, ERG, P.O. Box 2010, Morrisville, North Carolina 27560, or call (919) 468-7870 to speak directly to Mr. Heaney. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ERG/MT

cc: File - Wayne County
U.S. EPA, Region V
Wayne County Health Department
Air Compliance Section Inspector - Warren Greiling
Compliance Data Section - Jerry Curless
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

CONSTRUCTION PERMIT
OFFICE OF AIR MANAGEMENT

Johns Manville International, Inc.
814 Richmond Avenue
Richmond, Indiana 47374

(herein known as the Permittee) is hereby authorized to construct the facilities listed in Section A (Source Summary) of this permit. This permit is issued in accordance with the provisions of 326 IAC 2-1, 326 IAC 2-2, 40 CFR 52.780 and 40 CFR 124, with conditions listed on the attached pages.

Construction Permit.: CP-177-5873-00006	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: April 22, 1999

First Administrative Amendment: 177-11122, issued July 6, 1999
Second Administrative Amendment: 177-12976, issued February 13, 2001

Third Administrative Amendment 177-14315-00006	Pages Affected: All
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 30, 2001

SECTION A SOURCE SUMMARY

This construction permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) and presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)]

The Permittee owns and operates a wool fiberglass insulation manufacturing plant.

Responsible Official:	Emerson Bungard, Plant Manager
Source Address:	814 Richmond Avenue, Richmond, Indiana 47374
Mailing Address:	P.O. Box 428, Richmond, Indiana 47375-0428
SIC Code:	3296
County Location:	Wayne
County Status:	Attainment for all criteria pollutants

A.2 Emission Units and Pollution Control Equipment Summary

This source modification for Johns Manville International, Inc., relates to changes in the forming processes of Lines 2, 3, and 6 to manufacture a more consistent wool fiberglass product and increase the production capacities of the existing manufacturing lines.

(a) Raw Material Handling, Storage and Batching Equipment for Lines 2, 3, and 6:

(1) One (1) existing rail car unloading station. The raw materials received in rail cars are bottom unloaded into a screw conveyor that transfers the material to the storage silos via a bucket elevator and a diverter. The particulate emissions are controlled by a boot lift device that seals off the bottom of the rail car;

(2) Eight (8) existing raw material batch silos. As raw materials are loaded into the batch silos, air within the silos is displaced to the atmosphere through vents at the top of each silo. These vents are equipped with fabric filters to control particulate emissions in the airstream before it is exhausted to emission points S21 through S28; and

(3) Three (3) existing day bins. The raw material from the batch silos is transferred to the day bins via an enclosed conveyor system. Particulate emissions in the airstream are controlled with fabric filters before the airstream is exhausted to emission points S31, S32, and S33.

(b) Melt Facilities:

(1) One (1) existing Line 2 natural gas-fired melt furnace. The actual average glass production rate of 4,901 pounds per hour shall increase to a maximum glass production rate of 7,200 pounds per hour. The maximum heat input capacity of the melt furnace has been included in an OAM confidential file. The molten material flows from the furnace to the fiber forming process. The particulate emissions in the airstream are controlled by the existing electrostatic precipitator before the airstream is exhausted to Stack S5;

(2) One (1) existing Line 3 natural gas-fired melt furnace. The actual average glass production rate of 4,950 pounds per hour shall increase to a maximum glass production rate of 7,200 pounds per hour. The maximum heat input capacity of the melt furnace has been included in an OAM confidential file. The molten material flows from the furnace to the fiber forming process. The particulate emissions in the airstream are controlled by an electrostatic precipitator before the airstream is exhausted to Stack S5; and

(3) One (1) existing Line 6 electric melter. The actual average glass production rate of 1,600 pounds per hour shall increase to a maximum glass production rate of 4,000 pounds per hour. The molten material flows from the melter to the fiber forming process. The particulate emissions from the melter are controlled by a fabric filter before being exhausted to Stack S7.

(c) Forming Facilities:

(1) One (1) modified Line 2 forming chamber for unbonded product. The actual average glass production rate of 4,901 pounds per hour shall increase to a maximum glass production rate of 7,200 pounds per hour. Natural gas shall be utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAM confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured and transferred to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to Stack S2;

(2) One (1) modified Line 3 forming chamber for bonded and unbonded product. The actual average glass production rate of 4,950 pounds per hour shall increase to a maximum glass production rate of 7,200 pounds per hour. Natural gas shall be utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAM confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured. A binder is added to the bonded product which is transferred to a curing oven and the unbonded product is transferred directly to the shredding process. A water spray is applied to the airstream to control particulate matter emissions from unbonded product before the airstream is exhausted to Stack S3. A water spray and venturi scrubber are both utilized to control particulate matter emissions from bonded product before the airstream is exhausted to Stack S3; and

(3) One (1) modified Line 6 forming chamber for bonded and unbonded product. The actual average glass production rate of 1,600 pounds per hour shall increase to a maximum glass production rate of 4,000 pounds per hour. Natural gas shall be utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAM confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured. A binder is added to the bonded product which is transferred to a curing oven and the unbonded product is transferred directly to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to Stack S2.

(d) Curing and Cooling Facilities:

(1) One (1) existing Line 3 natural gas-fired curing oven for bonded product. The actual average glass production rate of 4,950 pounds per hour shall increase to a maximum glass production rate of 7,200 pounds per hour. During bonded production, particulate emissions in the airstream are controlled by a high efficiency air filter (HEAF) before the airstream is exhausted to Stack S3; and

(2) One (1) existing Line 6 natural gas-fired curing oven and cooling process for bonded product. The actual average glass production rate of 1,600 pounds per hour shall increase to a maximum glass production rate of 4,000 pounds per hour. During bonded production, the particulate emissions in the airstream are

controlled by a high efficiency air filter (HEAF) before the airstream is exhausted to Stack S2.

(e) Shredding and Packaging Facilities:

(1) One (1) existing Line 2 shredding process for unbonded product. The shredded fiber is pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by two baghouses before the airstream is exhausted to Stacks S85 and S86;

(2) One (1) existing Line 2 packaging area for unbonded product. The airstream is separated from the unbonded shredded product via a cyclone. Fiberglass collected in the cyclones is deposited in the packaging hopper and subsequently packaged for sale. The particulate emissions in the cyclone airstream are controlled by two (2) baghouses before the airstream is exhausted to Stacks S85 and S86;

(3) One (1) existing Line 3 shredding process for unbonded product. The shredded fiber is pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by two baghouses before the airstream is exhausted to Stacks S12 and S13;

(4) One (1) existing Line 3 packaging area for unbonded and bonded product. The airstream is separated from the unbonded shredded product via a cyclone. Fiber glass collected in the cyclone is deposited in the packaging hopper and subsequently packaged for sale. The particulate matter emissions in the cyclone airstream are controlled by two (2) baghouses before the airstream is exhausted to Stacks S12 and S13. The bonded product from Line 3 is trimmed and packaged and generates negligible particulate emissions that are uncontrolled;

(5) One (1) existing Line 6 shredding process for unbonded and bonded product. The shredded fiber is then pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by a baghouse before the airstream is exhausted to Stack S11; and

(6) One (1) existing Line 6 packaging area for unbonded and bonded product. The airstream is separated from the unbonded shredded product via a cyclone. Fiber glass collected in the cyclone is deposited in the packaging hopper and subsequently packaged for sale. The particulate emissions in the cyclone airstream are controlled by a baghouse before being exhausted to Stack S11. The bonded product from Line 6 may also be trimmed and packaged. This operation generates negligible particulate matter emissions that are uncontrolled.

(f) Ancillary Equipment:

(1) One (1) existing EP dust recycling fan that is exhausted to stack S34;

(2) One (1) existing cold end housekeeping system. The particulate emissions in the airstream are controlled by a baghouse before the airstream is exhausted to stack S10; and

(3) One (1) existing natural gas-fired boiler with a rated capacity of 25 MMBtu per hour and the capability to utilize propane as a backup fuel. The airstream from the boiler is exhausted to stack S4.

The above ancillary equipment has not been physically modified to handle the additional throughput capacity. The boiler originally used oil fuel, but has been modified to use only natural gas which is a cleaner burning fuel.

(g) Two (2) new standby diesel generators, rated at 635 hp and 700 hp, exhausting to stacks S162 and S163, respectively. These generators shall replace three (3) existing generators, each rated at 155 hp.

A.3 Permit Supersession

This permit shall supersede all previous permits issued to the source.

Section B CONSTRUCTION CONDITIONS

B.1 General Construction Conditions

(a) The data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may result in an increase in allowable emissions, the change must be approved by IDEM, OAM.

(b) This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

(c) Notwithstanding Construction Condition B.4, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

(d) When the facility is constructed and placed into operation, the operation conditions required by Section C and Section D shall be met.

B.2 Effective Date of the Permit

Pursuant to 40 CFR Parts 124.15 124.19 and 124.20, the effective date of this permit will be thirty-three (33) days from its issuance if comments are received.

B.3 Source Obligation

Pursuant to 326 IAC 2-2-8(a)(1) (PSD Source Obligation), approval to construct shall become invalid if construction is:

(a) Not commenced within eighteen (18) months after receipt of such approval;

(b) Discontinued for a period of eighteen (18) months or more; or

(c) Not completed within a reasonable time.

The Commissioner may extend the eighteen (18) month period upon a satisfactory showing that an extension is justified.

B.4 First Time Operation Permit

This document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to:

Indiana Department of Environmental Management
Permit Administration & Development Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, IN 46206-6015

verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM, OAM.

(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for

New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1-7.1(Fees).

(e) The Permittee has submitted their Part 70 permit application (T-177-7720-00006) on December 13, 1996 for the existing source. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

B.5 NSPS Reporting Requirement

Pursuant to the New Source Performance Standards (NSPS), Part 60.7, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

(a) Commencement of construction date (no later than 30 days after such date);

(b) Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

(c) Actual start-up date (within 15 days after such date); and

(d) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, IN 46206-6015

The application and enforcement of these standards have been delegated to IDEM, OAM. The requirements of 40 CFR Part 60 are also federally enforceable.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

General Conditions:

C.1 General Operation Conditions

(a) The data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by IDEM, OAM.

(b) The Permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder.

C.2 Transfer of Permit

Pursuant to 326 IAC 2-1-6 (Transfer of Permits), the following requirements shall apply:

(a) In the event that ownership of this wool fiberglass insulation facility is changed, the Permittee shall notify:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within thirty (30) days of the change. Notification shall include the date or proposed date of said change.

(b) A written notification shall be sufficient to transfer the permit from the current owner to the new owner.

(c) IDEM, OAM shall reserve the right to issue a new permit.

C.3 Permit Revocation

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

(a) violation of any conditions of this permit;

(b) failure to disclose all the relevant facts, or misrepresentation in obtaining this permit;

(c) changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit;

(d) noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode; or

(e) for any cause which establishes in the judgment of IDEM, OAM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

C.4 Availability of Permit

Pursuant to 326 IAC 2-1-3(l), the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by IDEM, OAM, or other public official having jurisdiction.

C.5 Preventive Maintenance Plan

Pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a Preventive Maintenance Plan, including the following information:

(a) identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(b) a description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(c) identification of the replacement parts which will be maintained in inventory for quick replacement.

The Preventive Maintenance Plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

C.6 Malfunction Condition

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to IDEM, OAM or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to IDEM, OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

Emission Limitations and Standards:

C.7 Fugitive Dust Emissions

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), the Permittee shall be in violation of 326 IAC 6-4 (Fugitive Dust Emissions) if any of the criteria specified in 326 IAC 6-4-2(1) through (4) are violated. Observations of visible emissions crossing the property line of the source at or near ground level must be made by a qualified representative of IDEM, OAM. [326 IAC 6-4-5(c)]

C.8 Opacity Limitations

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), the opacity shall meet the following:

(a) opacity shall not exceed an average of 40% any one (1) six (6) minute averaging period.

(b) opacity shall not exceed 60% for more than a cumulative total of 15 minutes (60 readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a 6-hour period.

Compliance Determination and Monitoring:

C.9 Opacity Determination

Pursuant to 326 IAC 5, 326 IAC 6, and 326 IAC 12, opacity from the source shall be measured using one or both of the following procedures to demonstrate compliance with the opacity limitations:

(a) opacity observations shall be performed in accordance with the applicable procedures under 326 IAC 5-1-4 and 40 CFR 60, Appendix A, Method 9; or

(b) continuous opacity monitoring data shall be recorded in accordance with the applicable procedures under 40 CFR 60, Appendix B, Performance Specification 1 and 326 IAC 3-5.

A violation determined by one of the above methods shall not be refuted by the other method.

C.10 Ambient Monitoring

That pursuant to 326 IAC 2-2-4, the Permittee shall establish ambient monitoring site for PM_{10} as described in (a) through (f). These sites shall begin collecting valid data prior to the commencement of operation of the modified fiberglass manufacturing lines.
The monitoring shall be conducted for a minimum of 36 months after the commencement of operation of the modified fiberglass manufacturing lines.

(a) The monitoring must be performed using U.S. EPA approved methods, procedures, and quality assurance programs. A Quality Assurance Plan and Protocol shall be submitted to:

Indiana Department of Environmental Management
Ambient Monitoring Section, Office of Air Management
2525 North Shadeland Avenue
Indianapolis, Indiana 46219

within 90 calendar days prior to commencement of monitoring. The Quality Assurance Plan and Protocol must be approved by IDEM, OAM prior to commencement of monitoring.

(b) The two (2) monitoring sites shall be established at a downwind location and an upwind location to be approved by IDEM, OAM. All monitors shall meet the operating and maintenance criteria outlined in IDEM, OAM Quality Assurance Manual.

(c) The ambient data for PM_{10} shall be collected for a minimum period of 36 months following the initial compliance demonstration. IDEM, OAM reserves the authority to require the Permittee to monitor for compliance with the National Ambient Air Quality

Standards (NAAQS) for $PM_{2.5}$ in the event that such information is necessary to demonstrate compliance with the standard.

(d) The monitoring site(s) shall measure the following meteorological parameters:

(1) wind direction,

(2) wind speed, and

(3) temperature.

(e) A quarterly summary of the monitoring data shall be submitted to:

Indiana Department of Environmental Management
Ambient Monitoring Section, Office of Air Management
2525 North Shadeland Avenue
Indianapolis, Indiana 46219

within ninety (90) calendar days after the end of the quarter being reported.

(f) After the 36 month period of monitoring, the Permittee may petition IDEM, OAM for the removal of the monitoring site if it has been established that the PM levels will continue to comply with the NAAQS with an adequate margin of safety. The monitoring requirements may be continued beyond the minimum 36 month period if there exists a threat to the NAAQS or if determined to be warranted by IDEM, OAM.

C.11 Emission Reporting Requirement

Pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee shall annually submit an emission statement of the source. This statement must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4.
The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management
Office of Air Management - Technical Support and Modeling
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015.

The annual emission statement required by this permit shall be considered timely if:

(a) delivered by U.S. mail and postmarked on or before the date it is due; or

(b) delivered by any other method if it is received and stamped by IDEM, OAM on or before the date it is due.

SECTION D.1 FACILITY OPERATION CONDITIONS FOR RAW MATERIAL HANDLING, STORAGE AND BATCHING EQUIPMENT

Facility Description:

(a) Raw Material Handling, Storage and Batching Equipment for Lines 2, 3, and 6:

(1) One (1) existing rail car unloading station. The raw materials received in rail cars are bottom unloaded into a screw conveyor that transfers the material to the storage silos via a bucket elevator and a diverter. The particulate emissions are controlled by a boot lift device that seals off the bottom of the rail car;

(2) Eight (8) existing raw material batch silos. As raw materials are loaded into the batch silos, air within the silos is displaced to the atmosphere through vents at the top of each silo. These vents are equipped with fabric filters to control particulate emissions in the airstream before it is exhausted to emission points S21 through S28; and

(3) Three (3) existing day bins. The raw material from the batch silos is transferred to the day bins via an enclosed conveyor system. Particulate emissions in the airstream are controlled with fabric filters before the airstream is exhausted to emission points S31, S32, and S33.

Emission Limitations and Standards

D.1.1 Particulate Matter Limitations

Pursuant to 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules), from the raw material handling, storage and batching facilities stated above shall comply with the following limitations:

(a) The unloading station shall be equipped with a bootlift device and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9;

(b) The raw material conveyor system shall be enclosed and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9; and

(c) The raw material batch silos and day bins shall be equipped with fabric filters and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9.

D.1.2 Visible Emission Notations

Visible emission notations shall be performed for the storage and handling facilities at least once each day that loading and conveying operations are conducted. A trained employee will record whether emissions are normal or abnormal.

(a) For processes operated continuously, “normal” means those conditions prevailing, or expected to prevail, 80% of the time the process is in operation, not counting start up or shut down time.

(b) In the case of batch or discontinuous operation, readings shall be taken during that part of the operation specified in the facility's specific condition prescribing visible emissions.

(c) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal and abnormal visible emissions for that specific process.

(d) The Preventive Maintenance Plan for this facility shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.1.3 Recordkeeping Requirement

(a) The Permittee shall maintain daily logs of the visible emission notations required by Operation Condition D.1.2.

(b) Records shall be retained for a minimum period of five (5) years. Records of the previous three (3) years shall be kept at the source location and be made available within one (1) hour upon verbal request of an IDEM, OAM, representative. Records of the remaining two (2) years may be stored elsewhere provided they be made available to the OAM within thirty (30) days after written request.

(c) Records of required monitoring information shall include, where applicable:

(1) the date, place, and time of sampling or measurements;

(2) the dates analyses were performed;

(3) the company or entity performing the analyses;

(4) the analytic techniques or methods used;

(5) the results of such analyses; and

(6) the operating conditions existing at the time of sampling or measurement.

(d) Support information shall include, where applicable:

(1) copies of all reports required by this permit;

(2) all original strip chart recordings for continuous monitoring instrumentation;

(3) all calibration and maintenance records; and

(4) records of any required preventive maintenance and corrective actions that were implemented. Such records shall briefly describe what was done and indicate who did it. Such records may include, but are not limited to work orders, quality assurance procedures, quality control procedures, operator's standard operating procedures, manufacturer's specifications or their equivalent, and equipment "troubleshooting" guidance.

(e) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

SECTION D.2 FACILITY OPERATION CONDITIONS FOR THE MELT FURNACES

Facility Description:

(a) Melt Facilities:

(1) One (1) existing Line 2 natural gas-fired melt furnace. The actual average glass production rate of 4,901 pounds per hour shall increase to a maximum glass production rate of 7,200 pounds per hour. The maximum heat input capacity of the melt furnace has been included in an OAM confidential file. The molten material flows from the furnace to the fiber forming process. The particulate emissions in the airstream are controlled by the existing electrostatic precipitator before the airstream is exhausted to Stack S5;

(2) One (1) existing Line 3 natural gas-fired melt furnace. The actual average glass production rate of 4,950 pounds per hour shall increase to a maximum glass production rate of 7,200 pounds per hour. The maximum heat input capacity of the melt furnace has been included in an OAM confidential file. The molten material flows from the furnace to the fiber forming process. The particulate emissions in the airstream are controlled by an electrostatic precipitator before the airstream is exhausted to Stack S5; and

(3) One (1) existing Line 6 electric melter. The actual average glass production rate of 1,600 pounds per hour shall increase to a maximum glass production rate of 4,000 pounds per hour. The molten material flows from the melter to the fiber forming process. The particulate emissions from the melter are controlled by a fabric filter before being exhausted to Stack S7.

Emission Limitations and Standards

D.2.1 Pollutant Emission Limitations

(a) Pursuant to 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules), each furnace shall comply with the following limitations:

Facility	Pollutant Emission Limitations, lb/ton of glass pulled		
	PM/PM_{10}	VOC	CO
Line 2 Melt Furnace	0.25	0.38	0.85
Line 3 Melt Furnace	0.25	0.38	0.85
Line 6 Melter	0.45	0.38	0.85

PM/PM_{10} means that the PM limit and the PM_{10} limit are the same and shall be measured as the sum of the filterable and condensible fractions.

(b) Pursuant to 326 IAC 2-2-3(a)(3) (PSD Rules) and 326 IAC 6-1-14, the particulate matter (PM) emissions from each furnace shall comply with the following limitations:

Facility	PM/PM_{10} Emission Limitations	
	tons/yr	gr/dscf
Line 2 Melt Furnace	7.8	0.01
Line 3 Melt Furnace		0.01
Line 6 Melter	3.9	0.020

(c) The particulate matter emissions established in (a) and (b) above shall supersede the following Operation Permit Conditions:

Facility	Operation Permit Condition
Lines 2 and 3 Melt Furnaces	Condition 6 of Operation Permit No. 89-02-88-0164, issued on April 2, 1984 and Condition 5 of Operation Permit No. 89-02-88-0165, issued on April 2, 1984
Line 2 Melt Furnace and Line 2 Forming Process	Operation Condition 4 of Construction Permit No. 177-3394-00006, issued April 11, 1994

(d) In order to avoid the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), each furnace shall comply with the following limitations:

Facility	Pollutant Emission Limitations, lbs/hr	
	NOx	SO2
Line 2 Melt Furnace	3.41	0.20
Line 3 Melt Furnace	3.41	0.20
Line 6 Melter	0.08	0.11

D.2.2 Operation Standards

Pursuant to 326 IAC 2-2-3(a)(3), the furnaces shall comply with the following limitations:

(a) Line 2 Melt Furnace shall not exceed a glass production rate of 7,200 pounds per hour;

(b) Line 3 Melt Furnace shall not exceed a glass production rate of 7,200 pounds per hour; and

(c) Line 6 Melter shall not exceed a glass production rate of 4,000 pounds per hour.

Compliance Determination and Monitoring:

D.2.3 Performance Testing

(a) Pursuant to 326 IAC 2-1-3 (Construction and Operating Permit Requirements), the following compliance stack tests shall be performed for the following facilities within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up:

Stack	Process	PM/PM_{10} [1]	NOx [2]
S5	Line 2	0.25 lb/ton 0.01 gr/dscf	3.41 lbs/hr
S5	Line 3	0.25 lb/ton 0.01 gr/dscf	3.41 lbs/hr
S7	Line 6	0.45 lb/ton 0.020 gr/dscf	No Testing Required

[1] PM/PM_{10} means that the PM limit and the PM_{10} limit are the same. PM shall be measured in accordance with 40 CFR 60, Appendix A, Method 5. PM_{10} shall be measured in accordance with 40 CFR 51, Appendix M, Methods 201A and 202.

[2] The MMBtu per hour ratings of each combustion unit to be tested (Lines 2 and 3 Melt Furnaces and Lines 2, 3, and 6 Manufacturing Processes) shall be included in the test protocol.

(b) All compliance tests shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit (Construction Condition B.5), utilizing methods approved by IDEM, OAM.

(1) A test protocol shall be submitted to:

Indiana Department of Environmental Management
Office of Air Management - Compliance Data Section
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

at least thirty-five (35) days before the intended test date. The Permittee shall develop and submit with the protocol for approval by IDEM, OAM, standard operating procedures to be followed during sampling, handling, analysis, quality control, quality assurance, and data reporting.

(2) The Compliance Data Section shall be notified of the actual test date at least two (2) weeks prior to the date.

(3) All test reports must be received by the Compliance Data Section within 45 days of completion of the testing.

(4) When the results of a stack test performed exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(5) Whenever the results of the stack test performed exceed the level specified in this permit, a second test to demonstrate compliance shall be performed within 120 days. Failure of the second test to demonstrate compliance may be grounds for immediate revocation of this permit to operate the affected facility.

(c) IDEM, OAM retains the authority under 326 IAC 2-1-4(f) to require the Permittee to perform additional and future compliance testing as necessary.

D.2.4 Electrostatic Precipitator (ESP) Operating Condition

The electrostatic precipitator for the Line 2 and Line 3 natural gas-fired melt furnaces shall be operated at all times when either furnace is in operation.

(a) The Permittee shall maintain the field voltages of the ESP at a minimum level of 20 kilovolts or a minimum level determined from a compliant stack test. At least once per day the Permittee shall monitor and record the primary voltage and amperage of the T/R sets and the voltages and amperages of the three (3) fields. The Preventive Maintenance Plan for the ESP shall contain troubleshooting contingency and corrective actions for the ESP when the voltage of the T-R set drops five (5) direct current kilovolts below the predetermined baseline or if less than 90% of the total T-R sets are functioning.

(b) The instrument used for determining the T-R set voltage shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

(c) An inspection of the ESP shall be performed each calendar quarter. A record shall be kept of the results of the inspection and the number of ESP part(s) replaced.

(d) In the event that an ESP failure has been observed:

(1) All reasonable measures shall be taken to correct, as expeditiously as practicable, the conditions causing the emissions to exceed the allowable limits;

(2) All possible steps shall be taken to minimize the impact of the excessive emissions on ambient air quality which may include but not limited to curtailment of operation and/or shutdown of the facility; and

(3) Failure or partial failure of the control device shall be reported to IDEM, OAM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM, OAM.

D.2.5 Baghouse Operating Condition

The baghouse for the Line 6 electric melter shall be operated at all times when the melter is in operation.

(a) The Permittee shall take readings of the total static pressure drop across the baghouse, at least once per day. The pressure drop across the baghouse shall be maintained within a pressure drop range of 1.5 and 7.0 inches of water as determined from the manufacturer specifications. The pressure drop range may be adjusted to incorporate the pressure drop range determined by a compliant stack test. If the water pressure falls outside of the determined range, corrective action shall be taken in accordance with the Permittee's Preventive Maintenance Plan. The company shall document the cause of the out-of-range reading and take immediate action to correct any problem. Failure or partial failure of the control device shall be reported to IDEM, OAM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM, OAM.

(b) The instrument used for determining the pressure shall be subject to approval by IDEM, OAM and shall be calibrated at least once every six (6) months.

(c) The gauge employed to take the pressure drop across the baghouse or any part of the facility shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within ± 2 percent of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.

(d) An inspection of the baghouse shall be performed during each major plant outage or at a minimum of two (2) times per year. Defective bags shall be replaced. A record shall be kept of the results of the inspection and the number of bags replaced.

(e) In the event that a bag's failure has been observed and emissions temporarily exceed the standards:

(1) All reasonable measures shall be taken to correct, as expeditiously as practicable, the conditions causing the emissions to exceed the allowable limits;

(2) All possible steps shall be taken to minimize the impact of the excessive emissions on ambient air quality which may include but not limited to curtailment of operation and/or shutdown of the facility; and

(3) Failure or partial failure of the control device shall be reported to IDEM, OAM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM, OAM.

D.2.6 Visible Emission Notations

Visible emission notations of all exhaust to the atmosphere from the ESP and the baghouse associated with the melt operations shall be performed once per working shift (during daylight hours). A trained employee will record whether emissions are normal or abnormal.

(a) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, 80% of the time the process is in operation, not counting start up or shut down time.

(b) In the case of batch or discontinuous operation, readings shall be taken during that part of the operation specified in the facility's specific condition prescribing visible emissions.

(c) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal and abnormal visible emissions for that specific process.

(d) The Preventive Maintenance Plan for this facility shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.2.7 Fuel Limitation

The Lines 2 and 3 melt furnaces shall only use natural gas to demonstrate compliance with the emission limitations required by Operation Condition D.2.1.

Recordkeeping and Reporting Requirements

D.2.8 Recordkeeping Requirement

(a) The Permittee shall maintain the following records:

(1) daily logs of the ESP parameters established in Operation Condition D.2.4(a), semi-annual logs of the parameters established in Operation Condition D.2.4(b) and quarterly logs of the parameters established in Operation Condition D.2.4(c);

(2) daily logs of the baghouse parameters established in Operation Condition D.2.5(a), semi-annual logs of the parameters established in Operation Condition D.2.5(b) and quarterly logs of the parameters established in Operation Condition D.2.5(d); and

(3) daily logs of the visible emission notations required by Operation Condition D.2.6.

(b) Records shall be retained for a minimum period of five (5) years. Records of the previous three (3) years shall be kept at the source location and be made available within one (1) hour upon verbal request of an IDEM, OAM, representative. Records of the remaining two (2) years may be stored elsewhere provided they be made available to the OAM within thirty (30) days after written request.

(c) Records of required monitoring information shall include, where applicable:

(1) the date, place, and time of sampling or measurements;

(2) the dates analyses were performed;

(3) the company or entity performing the analyses;

(4) the analytic techniques or methods used;

(5) the results of such analyses; and

(6) the operating conditions existing at the time of sampling or measurement.

(d) Support information shall include, where applicable:

(1) copies of all reports required by this permit;

(2) all original strip chart recordings for continuous monitoring instrumentation;

(3) all calibration and maintenance records; and

(4) records of any required preventive maintenance and corrective actions that were implemented. Such records shall briefly describe what was done and indicate who did it. Such records may include, but are not limited to work orders, quality assurance procedures, quality control procedures, operator’s standard operating procedures, manufacturer's specifications or their equivalent, and equipment "troubleshooting" guidance.

(e) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

SECTION D.3 FACILITY OPERATION CONDITIONS FOR THE MANUFACTURING LINES - FORMING, CURING, AND COOLING

Facility Description:

(a) Forming Facilities:

(1) One (1) modified Line 2 forming chamber for unbonded product. The actual average glass production rate of 4,901 pounds per hour shall increase to a maximum glass production rate of 7,200 pounds per hour. Natural gas shall be utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAM confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured and transferred to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to Stack S2;

(2) One (1) modified Line 3 forming chamber for bonded and unbonded product. The actual average glass production rate of 4,950 pounds per hour shall increase to a maximum glass production rate of 7,200 pounds per hour. Natural gas shall be utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAM confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured. A binder is added to the bonded product which is transferred to a curing oven and the unbonded product is transferred directly to the shredding process. A water spray is applied to the airstream to control particulate matter emissions from unbonded product before the airstream is exhausted to Stack S3. A water spray and venturi scrubber are both utilized to control particulate matter emissions from bonded product before the airstream is exhausted to Stack S3; and

(3) One (1) modified Line 6 forming chamber for bonded and unbonded product. The actual average glass production rate of 1,600 pounds per hour shall increase to a maximum glass production rate of 4,000 pounds per hour. Natural gas shall be utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAM confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured. A binder is added to the bonded product which is transferred to a curing oven and the unbonded product is transferred directly to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to Stack S2.

(b) Curing and Cooling Facilities:

(1) One (1) existing Line 3 natural gas-fired curing oven for bonded product. The actual average glass production rate of 4,950 pounds per hour shall increase to a maximum glass production rate of 7,200 pounds per hour. During bonded production, particulate emissions in the airstream are controlled by a high efficiency air filter (HEAF) before the airstream is exhausted to Stack S3; and

(2) One (1) existing Line 6 natural gas-fired curing oven and cooling process for bonded product. The actual average glass production rate of 1,600 pounds per hour shall increase to a maximum glass production rate of 4,000 pounds per hour. During bonded production, the particulate emissions in the airstream are controlled by a high efficiency air filter (HEAF) before the airstream is exhausted to Stack S2.

Emission Limitations and Standards:

D.3.1 Pollutant Emission Limitations

(a) Pursuant to 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules), each manufacturing line shall comply with the following limitations:

(1) Unbonded Product Limitations

Facility	Pollutant Limitations		
	PM/PM_{10} (lb/ton glass pulled)	VOC (lbs/hr)	CO (lbs/hr)
Line 2 Forming Process	3.70	6.78	21.0
Line 3 Forming Process	3.70	6.78	21.0
Line 6 Forming Process	3.70	3.77	25.3

(2) Bonded Product Limitations

Facility	Pollutant Limitations		
	PM/PM_{10} (lb/ton glass pulled)	VOC (lbs/hr)	CO (lbs/hr)
Line 3 Forming Process	2.19	18.6	21.0
Line 3 Curing Process	0.56	4.25	1.22
Line 6 Cooling Process	0.29	0.40	0.39
Line 6 Forming Process	7.84	8.66	25.3
Line 6 Curing Process	1.99	1.50	1.22

PM/PM_{10} means that the PM limit and the PM_{10} limit are the same and shall be measured as the sum of the filterable and condensible fractions. The particulate matter emissions established above demonstrate compliance with 40 CFR 60, Subpart PPP (New Source Performance Standards (NSPS) for Wool Fiberglass Insulation Manufacturing Plants).

(b) Pursuant to 326 IAC 6-1-14, the particulate matter (PM) emissions from each manufacturing line shall comply with the following limitations:

Facility	PM Emission Limitations	
	tons/yr	gr/dscf
Line 2 Forming Process	58.3	0.02
Line 2 Curing Process	0	–
Line 3 Forming Process	123.6	0.02

Facility	PM Emission Limitations	
	tons/yr	gr/dscf
Line 3 Curing Process	27.4	0.02
Line 6 Forming Process	45.4	0.02
Line 6 Curing Process	6.2	0.02

(c) The particulate matter emissions established in (a) and (b) above shall supersede the following Operation Permit Conditions:

Facility	Operation Permit Condition
Line 2 Forming/Curing Process	Condition 5 of Operation Permit No. 89-02-88-0166, issued on April 2, 1984
Line 3 Forming/Curing Process	Condition 5 of Operation Permit No. 89-02-88-0167, issued on April 2, 1984

(d) In order to avoid the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), each manufacturing line shall comply with the following limitations:

Facility	Pollutant Emission Limitations, lbs/hr	
	NOx	SO2
Line 2 Forming Process	2.03	--
Line 3 Forming Process	2.03	--
Line 3 Curing Process	1.51	--
Line 6 Cooling Process	0.25	--
Line 6 Forming Process	2.18	--
Line 6 Curing Process	0.84	--

(e) In order to avoid the requirements of 326 IAC 2-1-3.4 (New Source Toxics Control Rule), the hazardous air pollutant (HAP) emissions from manufacturing lines 2, 3, and 6 shall be less than 10 tons of a single HAP per year and less than 25 tons of combined HAPs per year.

D.3.2 Operation Standards

The forming, curing, and cooling processes shall comply with the following limitations:

(a) Pursuant to 326 IAC 2-2-3(a)(3), Line 2 Forming Process shall not exceed a glass production rate of unbonded product of 7,200 pounds per hour;

(b) Pursuant to 326 IAC 2-2-3(a)(3), Line 3 Forming and Curing Process shall not exceed a glass production rate of 7,200 pounds per hour; and

(c) Pursuant to 326 IAC 2-2-3(a)(3), Line 6 Forming, Curing, and Cooling Process shall not exceed a glass production rate of 4,000 pounds per hour.

(d) The total production of bonded and unbonded product from each line shall be limited as follows to demonstrate compliance with the annual PM emission limitations required by Operation Condition D.3.1(b):

Facility	Total Glass Production Limitation, tons/yr
Line 2 Forming Process	31,536
Line 3 Forming Process	31,536
Line 6 Forming Process	17,520

(e) The production of bonded product from Line 6 shall be limited to 6,240 tons of glass per year, rolled on a monthly basis, to demonstrate compliance with the PM and VOC emission limitations required by Operation Condition D.3.1(b).

D.3.3 BACT Requirement

Pursuant to 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules), the Line 2 curing oven shall be permanently removed from service upon construction and operation of this permit modification.

Compliance Determination and Monitoring:

D.3.4 Performance Testing

(a) Pursuant to 326 IAC 2-1-3 (Construction and Operating Permit Requirements), the following compliance stack tests shall be performed within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. Lines 3 and 6 shall be performed for both bonded and unbonded products:

Stack	Process	PM/PM_{10}[1]	NO_x[2]	VOC	CO	HAP[3]
S2	Line 2 Forming Unbonded	3.70 lb/ton 0.02 gr/dscf	2.03 lbs/hr	6.78 lb/hr	21.0 lb/hr	
S2	Line 6 Forming-UnBonded	3.70 lb/ton 0.02 gr/dscf	2.18 lbs/hr	3.77 lb/hr	25.3 lb/hr	
S2	Line 6 Forming/Curing /Cooling -Bonded	10.1 lb/ton 0.02 gr/dscf	3.27 lbs/hr	10.6 lb/hr	26.9 lb/hr	2.28 lb/hr Single HAP; 5.71 lb/hr Combined HAP
S3	Line 3 Forming - Unbonded	3.70 lb/ton 0.02 gr/dscf	2.03 lbs/hr	6.78 lb/hr	21.0 lb/hr	
S3	Line 3 Forming/ Curing-Bonded	2.75 lb/ton 0.02 gr/dscf	3.54 lbs/hr	22.9 lb/hr	22. 2 lb/hr	2.28 lb/hr Single HAP; 5.71 lb/hr Combined HAP

[1] PM/PM_{10} means that the PM limit and the PM_{10} limit are the same. PM shall be measured in accordance with 40 CFR 60, Appendix A, Method 5. PM_{10} shall be measured in accordance with 40 CFR 51, Appendix M, Methods 201A and 202.

[2] The MMBtu per hour ratings of each combustion unit to be tested (Lines 2 and 3 Melt Furnaces and Lines 2, 3, and 6 Manufacturing Processes) shall be included in the test protocol.

[3] HAP Compliance Tests shall consist of formaldehyde and phenol. The compliance tests shall be performed during the production of bonded product for lines 3 and 6. Single HAP emissions from lines 3 and 6 shall not exceed 10 tons per year for a single HAP and 25 tons per year for combined HAPs to demonstrate compliance with Operation Condition No. D.3.1(e).

(b) All compliance tests shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit (Construction Condition B.5), utilizing methods approved by IDEM, OAM.

(1) A test protocol shall be submitted to:

Indiana Department of Environmental Management
Office of Air Management - Compliance Data Section
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

at least thirty-five (35) days before the intended test date. The Permittee shall develop and submit with the protocol for approval by IDEM, OAM, standard operating procedures to be followed during sampling, handling, analysis, quality control, quality assurance, and data reporting.

(2) The Compliance Data Section shall be notified of the actual test date at least two (2) weeks prior to the date.

(3) All test reports must be received by the Compliance Data Section within 45 days of completion of the testing.

(4) When the results of a stack test performed exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(5) Whenever the results of the stack test performed exceed the level specified in this permit, a second test to demonstrate compliance shall be performed within 120 days. Failure of the second test to demonstrate compliance may be grounds for immediate revocation of this permit to operate the affected facility.

(c) IDEM, OAM retains the authority under 326 IAC 2-1-4(f) to require the Permittee to perform additional and future compliance testing as necessary.

D.3.5 Visible Emission Notations

Visible emission notations of all exhaust to the atmosphere from stacks S2 and S3 shall be performed once per working shift (during daylight hours). A trained employee will record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, 80% of the time the process is in operation, not counting start up or shut down time.

(c) In the case of batch or discontinuous operation, readings shall be taken during that part of the operation specified in the facility's specific condition prescribing visible emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal and abnormal visible emissions for that specific process.

(e) The Preventive Maintenance Plan for this facility shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.3.6 High Efficiency Air Filter (HEAF) Operating Condition

The HEAFs associated with the Line 3 curing process and the Line 6 curing and cooling process shall be operated at all times when its associated process is in operation.

(a) The Permittee shall monitor and record the total static pressure drop across the HEAF, at least once per day. The pressure drop across the HEAF shall be maintained within a pressure drop range of 1.0 and 7.0 inches of water. The pressure drop range may be adjusted to incorporate the pressure drop determined by a compliant stack test. If the water pressure falls outside of the determined range, corrective action shall be taken in accordance with the Permittee's Preventive Maintenance Plan. The company shall document the cause of the out-of-range reading and take immediate action to correct any problem. Failure or partial failure of the control device shall be reported to IDEM, OAM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM, OAM.

(b) The instrument used for determining the pressure shall be subject to approval by IDEM, OAM and shall be calibrated at least once every six (6) months.

(c) The gauge employed to take the pressure drop across the HEAF or any part of the facility shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within $\pm$ 2 percent of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.

(d) An inspection of the HEAF shall be performed each calendar quarter. Defective media shall be replaced. A record shall be kept of the results of the inspection and the media replaced.

(e) In the event that a media failure has been observed and emissions temporarily exceed the standards:

(1) All reasonable measures shall be taken to correct, as expeditiously as practicable, the conditions causing the emissions to exceed the allowable limits;

(2) All possible steps shall be taken to minimize the impact of the excessive emissions on ambient air quality which may include but not limited to curtailment of operation and/or shutdown of the facility; and

(3) Failure or partial failure of the control device shall be reported to IDEM, OAM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM, OAM.

D.3.7 Water Spray Operating Condition

The water spray systems associated with the forming sections of the manufacturing lines shall be operated at all times when the forming sections are in operation.

D.3.8 Venturi Scrubber Operating Condition

The scrubber shall be constructed and operated prior to the manufacture of bonded product on Line 3. The scrubber shall be operated at all times when Line 3 is in operation for the production of bonded product.

(a) The Permittee shall monitor and record the pressure drop and flow rate of the scrubber, at least once per day. The Preventive Maintenance Plan for the scrubber shall contain troubleshooting contingency and corrective actions for when the acid content, pressure drop and flow rate readings are outside of the normal range for any one reading.

(b) The instruments used for determining the pressure drop and flow rate shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

(c) The gauge employed to take the pressure drop across the scrubber or any part of the facility shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within $\pm$ 2% of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.

(d) An inspection of the scrubber shall be performed each calendar quarter. Defective scrubber part(s) shall be replaced. A record shall be kept of the results of the inspection and the number of scrubber part(s) replaced.

(e) In the event of scrubber failure has been observed and emissions temporarily exceed the standards:

(1) All reasonable measures shall be taken to correct, as expeditiously as practicable, the conditions causing the emissions to exceed the allowable limits;

(2) All possible steps shall be taken to minimize the impact of the excessive emissions on ambient air quality which may include but not limited to curtailment of operation and/or shutdown of the facility; and

(3) Failure or partial failure of the control device shall be reported to IDEM, OAM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM, OAM.

Recordkeeping and Reporting Requirements:

D.3.9 Recordkeeping Requirement

(a) The Permittee shall maintain the following records:

(1) visible emission notations required by Operation Condition D.3.5 shall be performed once per working shift (during daylight hours) to demonstrate compliance with the PM emission limitations required by Operation Condition D.3.1; and

(2) daily logs of the parameters established in Operation Condition D.3.6(a), semi-annual logs of the parameters established in Operation Condition D.3.6(b) and quarterly logs of the parameters established in Operation Condition D.3.6(d) shall be performed to demonstrate compliance with the PM emission limitations for lines 3 and 6 curing ovens and cooling processes required by Operation Condition D.3.1.

(3) daily logs of the parameters established in Operation Condition D.3.8(a) semi-annual logs of the parameters established in Operation Condition D.3.8(b) and quarterly logs of the parameters established in Operation Condition D.3.8(d) shall be performed to demonstrate compliance with the PM emission limitation for the production of bonded product on manufacturing line 3 required by Operation Condition D.3.1.

(b) Records shall be retained for a minimum period of five (5) years. Records of the previous three (3) years shall be kept at the source location and be made available within one (1) hour upon verbal request of an IDEM, OAM, representative. Records of the remaining two (2) years may be stored elsewhere provided they be made available to the OAM within thirty (30) days after written request.

(c) Records of required monitoring information shall include, where applicable:

(1) the date, place, and time of sampling or measurements;

(2) the dates analyses were performed;

(3) the company or entity performing the analyses;

(4) the analytic techniques or methods used;

(5) the results of such analyses; and

(6) the operating conditions existing at the time of sampling or measurement.

(d) Support information shall include, where applicable:

(1) copies of all reports required by this permit;

(2) all original strip chart recordings for continuous monitoring instrumentation;

(3) all calibration and maintenance records; and

(4) records of any required preventive maintenance and corrective actions that were implemented. Such records shall briefly describe what was done and indicate who did it. Such records may include, but are not limited to work orders, quality assurance procedures, quality control procedures, operator's standard operating procedures, manufacturer's specifications or their equivalent, and equipment "troubleshooting" guidance.

(e) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

D.3.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit,

using the reporting forms located at the end of this permit, or their equivalent, withing thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.4 FACILITY OPERATION CONDITIONS FOR THE SHREDDING AND PACKAGING AREAS

Facility Description:

(a) The following shredding and packaging processes for Lines 2, 3, and 6 shall increase its hours of operational use to achieve maximum production capacity:

(1) One (1) existing Line 2 shredding process. The shredded fiber is pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by two baghouses before the airstream is exhausted to Stacks S85 and S86;

(2) One (1) existing Line 2 packaging area. The airstream is separated from the unbonded shredded product via a cyclone. Fiberglass collected in the cyclones is deposited in the packaging hopper and subsequently packaged for sale. The particulate emissions in the cyclone airstream are controlled by two (2) baghouses before the airstream is exhausted to Stacks S85 and S86;

(3) One (1) existing Line 3 shredding process for unbonded product. The shredded fiber is pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by two baghouses before the airstream is exhausted to Stacks S12 and S13;

(4) One (1) existing Line 3 packaging area for unbonded and bonded product. The airstream is separated from the unbonded shredded product via a cyclone. Fiber glass collected in the cyclone is deposited in the packaging hopper and subsequently packaged for sale. The particulate matter emissions in the cyclone airstream are controlled by two (2) baghouses before the airstream is exhausted to Stacks S12 and S13. The bonded product from Line 3 is trimmed and packaged and generates negligible particulate emissions that are uncontrolled;

(5) One (1) existing Line 6 shredding process for unbonded and bonded product. The shredded fiber is then pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by a baghouse before the airstream is exhausted to Stack S11; and

(6) One (1) existing Line 6 packaging area for unbonded and bonded product. The airstream is separated from the unbonded shredded product via a cyclone. Fiber glass collected in the cyclone is deposited in the packaging hopper and subsequently packaged for sale. The particulate emissions in the cyclone airstream are controlled by a baghouse before being exhausted to Stack S11. The bonded product from Line 6 may also be trimmed and packaged. This operation generates negligible particulate matter emissions that are uncontrolled.

Emission Limitations and Standards

D.4.1 Particulate Matter Emission Limitations

Pursuant to 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules), each shredding and packaging area shall comply with the following limitations:

Facility	Facility Stack	PM/PM_{10} Emission Limitations, lb/ton glass pulled
Line 2 Shredding and Packaging	S85	0.26
Line 2 Shredding and Packaging	S86	0.26
Line 3 Shredding and Packaging	S12	0.29
Line 3 Shredding and Packaging	S13	0.57
Line 6 Shredding and Packaging	S11	0.65

PM/PM_{10} means that the PM limit and the PM_{10} limit are the same and shall be measured as the sum of the filterable and condensible fractions.

D.4.2 Operation Standards

Pursuant to 326 IAC 2-2-3(a)(3), the furnaces shall comply with the following limitations:

(a) Line 2 Shredding and Packaging Process shall not exceed a glass production rate of 7,200 pounds per hour;

(b) Line 3 Shredding and Packaging Process shall not exceed a glass production rate of 7,200 pounds per hour; and

(c) Line 6 Shredding and Packaging Process shall not exceed a glass production rate of 4,000 pounds per hour.

Compliance Determination and Monitoring:

D.4.3 Performance Testing

(a) Pursuant to 326 IAC 2-1-3 (Construction and Operating Permit Requirements), the following compliance stack tests shall be performed within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up:

Stack	Process	PM/PM_{10} [1]
S11	Line 6	0.65 lb/ton
S12	Line 3	0.29 lb/ton
S13	Line 3	0.57 lb/ton
S85	Line 2	0.26 lb/ton
S86	Line 2	0.26 lb/ton

[1] PM/PM_{10} means that the PM limit and the PM_{10} limit are the same. PM shall be measured in accordance with 40 CFR 60, Appendix A, Method 5. PM_{10} shall be measured in accordance with 40 CFR 51, Appendix M, Methods 201A and 202.

(b) All compliance tests shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit (Construction Condition B.5), utilizing methods approved by IDEM, OAM.

(1) A test protocol shall be submitted to:

Indiana Department of Environmental Management
Office of Air Management - Compliance Data Section
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

at least thirty-five (35) days before the intended test date. The Permittee shall develop and submit with the protocol for approval by IDEM, OAM, standard operating procedures to be followed during sampling, handling, analysis, quality control, quality assurance, and data reporting.

(2) The Compliance Data Section shall be notified of the actual test date at least two (2) weeks prior to the date.

(3) All test reports must be received by the Compliance Data Section within 45 days of completion of the testing.

(4) When the results of a stack test performed exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(5) Whenever the results of the stack test performed exceed the level specified in this permit, a second test to demonstrate compliance shall be performed within 120 days. Failure of the second test to demonstrate compliance may be grounds for immediate revocation of this permit to operate the affected facility.

(c) IDEM, OAM retains the authority under 326 IAC 2-1-4(f) to require the Permittee to perform additional and future compliance testing as necessary.

D.4.4 Visible Emission Notations

Visible emission notations of all exhaust to the atmosphere from stacks S11, S12, S13, S85 and S86 associated with the shredding and packaging area baghouse systems shall be performed once per working shift (during daylight hours). A trained employee will record whether emissions are normal or abnormal.

(a) For processes operated continuously, “normal” means those conditions prevailing, or expected to prevail, 80% of the time the process is in operation, not counting start up or shut down time.

(b) In the case of batch or discontinuous operation, readings shall be taken during that part of the operation specified in the facility's specific condition prescribing visible emissions.

(c) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal and abnormal visible emissions for that specific process.

(d) The Preventive Maintenance Plan for this facility shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.4.5 Baghouse Operating Condition

The baghouse systems associated with the shredding and packaging areas shall be operated at all times when its associated process is in operation.

(a) The Permittee shall monitor and record the total static pressure drop across each of the baghouses, at least once per day. The pressure drop across each of the baghouses shall be maintained within a pressure drop range of 1.0 to 7.0 inches of water. The pressure drop range may be adjusted to incorporate the pressure drop determined by a compliant stack test. If the water pressure falls outside of the determined range, corrective action shall be taken in accordance with the Permittee's Preventive Maintenance Plan. The company shall document the cause of the out-of-range reading and take immediate action to correct any problem. Failure or partial failure of the control device shall be reported to IDEM, OAM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM, OAM.

(b) The instrument used for determining the pressure shall be subject to approval by IDEM, OAM and shall be calibrated at least once every six (6) months.

(c) The gauge employed to take the pressure drop across the baghouse or any part of the facility shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within $\pm$ 2 percent of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.

(d) An inspection of the baghouse shall be performed each calendar quarter. Defective bags shall be replaced. A record shall be kept of the results of the inspection and the number of bags replaced.

(e) In the event that a bag's failure has been observed and emissions temporarily exceed the standards:

(1) All reasonable measures shall be taken to correct, as expeditiously as practicable, the conditions causing the emissions to exceed the allowable limits;

(2) All possible steps shall be taken to minimize the impact of the excessive emissions on ambient air quality which may include but not limited to curtailment of operation and/or shutdown of the facility; and

(3) Failure or partial failure of the control device shall be reported to IDEM, OAM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM, OAM.

Recordkeeping and Reporting Requirements

D.4.6 Recordkeeping Requirement

(a) The Permittee shall maintain the following records:

(1) visible emission notations required by Operation Condition D.4.4 shall be performed once per working shift (during daylight hours) to demonstrate compliance with the PM emission limitations required by Operation Condition D.4.1; and

(2) daily logs of the parameters established in Operation Condition D.4.5(a), semi-annual logs of the parameters established in Operation Condition D.4.5(b) and quarterly logs of the parameters established in Operation Condition D.4.5(d) shall be performed to demonstrate compliance with the PM emission limitations required by Operation Condition D.4.1.

(b) Records shall be retained for a minimum period of five (5) years. Records of the previous three (3) years shall be kept at the source location and be made available within one (1) hour upon verbal request of an IDEM, OAM, representative. Records of the remaining two (2) years may be stored elsewhere provided they be made available to the OAM within thirty (30) days after written request.

(c) Records of required monitoring information shall include, where applicable:

(1) the date, place, and time of sampling or measurements;

(2) the dates analyses were performed;

(3) the company or entity performing the analyses;

(4) the analytic techniques or methods used;

(5) the results of such analyses; and

(6) the operating conditions existing at the time of sampling or measurement.

(d) Support information shall include, where applicable:

(1) copies of all reports required by this permit;

(2) all original strip chart recordings for continuous monitoring instrumentation;

(3) all calibration and maintenance records; and

(4) records of any required preventive maintenance and corrective actions that were implemented. Such records shall briefly describe what was done and indicate who did it. Such records may include, but are not limited to work orders, quality assurance procedures, quality control procedures, operator's standard operating procedures, manufacturer's specifications or their equivalent, and equipment "troubleshooting" guidance.

(e) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

SECTION D.5 FACILITY OPERATION CONDITIONS FOR THE ANCILLARY EQUIPMENT

Facility Description:

(a) Ancillary Equipment:

(1) One (1) existing EP dust recycling fan that is exhausted to stack S34;

(2) One (1) existing cold end housekeeping system. The particulate emissions in the airstream are controlled by a baghouse before the airstream is exhausted to stack S10; and

(3) One (1) existing natural gas-fired boiler with a rated capacity of 25 MMBtu per hour and the capability to utilize propane as a backup fuel. The airstream from the boiler is exhausted to stack S4.

Emission Limitations and Standards

D.5.1 Pollutant Emission Limitations

(a) Pursuant to 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration Rules), the ancillary equipment shall comply with the following particulate matter limitations:

(1) the particulate emissions from stack S34 from the EP recycling fan shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9;

(2) the cold end housekeeping system shall be equipped with a baghouse system and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9; and

(3) the natural gas-fired boiler shall not exceed 0.34 pounds per hour and 0.0137 pounds per million Btu. The boiler shall also be limited to 1.0 tons per year to demonstrate compliance with the requirements of 326 IAC 6-1-14.

(b) Pursuant to 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules), the ancillary equipment shall comply with the following limitations:

Facility	Pollutant Limitations, lbs/hr		
	PM/PM_{10}	VOC	CO
EP Dust Recycling Fan	0.19	0	0
Cold End Housekeeping System	0.51	0	0
Natural Gas-fired Boiler	0.34	0.07	0.875

PM/PM_{10} means that the PM limit and the PM_{10} limit are the same and shall be measured as the sum of the filterable and condensible fractions.

(c) In order to avoid the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), the ancillary equipment shall comply with the following limitations:

Facility	Pollutant Emission Limitations, lbs/hr	
	NOx	SO2
EP Dust Recycling Fan	0	0
Cold End Housekeeping System	0	0
Natural Gas-fired Boiler	3.5	0.015

Compliance Determination and Monitoring

D.5.2 Baghouse Operating Condition

The baghouse system associated with the cold end housekeeping system shall be operated at all times when its associated process is in operation.

(a) The Permittee shall monitor and record the total static pressure drop across each of the baghouses, at least once per day. The pressure drop across each of the baghouses shall be maintained within a pressure drop range of 1.0 to 7.0 inches of water. The pressure drop range may be adjusted to incorporate the pressure drop determined by a compliant stack test. If the water pressure falls outside of the determined range, corrective action shall be taken in accordance with the Permittee's Preventive Maintenance Plan. The company shall document the cause of the out-of-range reading and take immediate action to correct any problem. Failure or partial failure of the control device shall be reported to IDEM, OAM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM, OAM.

(b) The instrument used for determining the pressure shall be subject to approval by IDEM, OAM and shall be calibrated at least once every six (6) months.

(c) The gauge employed to take the pressure drop across the baghouse or any part of the facility shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within $\pm$ 2 percent of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.

(d) An inspection of the baghouse shall be performed each calendar quarter. Defective bags shall be replaced. A record shall be kept of the results of the inspection and the number of bags replaced.

(e) In the event that a bag's failure has been observed and emissions temporarily exceed the standards:

(1) All reasonable measures shall be taken to correct, as expeditiously as practicable, the conditions causing the emissions to exceed the allowable limits;

(2) All possible steps shall be taken to minimize the impact of the excessive emissions on ambient air quality which may include but not limited to curtailment of operation and/or shutdown of the facility; and

(3) Failure or partial failure of the control device shall be reported to IDEM, OAM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM, OAM.

Recordkeeping and Reporting Requirements

D.5.3 Recordkeeping Requirement

(a) The Permittee shall maintain the following records:

(1) monthly fuel usage log to document compliance with the annual PM emission limitation required by Operation Condition D.5.1(a)(3); and

(2) daily logs of the parameters established in Operation Condition D.5.2(a), semi-annual logs of the parameters established in Operation Condition D.5.2(b) and quarterly logs of the parameters established in Operation Condition D.5.2(d) shall be performed to demonstrate compliance with the PM emission limitations required by Operation Condition D.5.1(b).

(b) Records shall be retained for a minimum period of five (5) years. Records of the previous three (3) years shall be kept at the source location and be made available within one (1) hour upon verbal request of an IDEM, OAM, representative. Records of the remaining two (2) years may be stored elsewhere provided they be made available to the OAM within thirty (30) days after written request.

(c) Records of required monitoring information shall include, where applicable:

(1) the date, place, and time of sampling or measurements;

(2) the dates analyses were performed;

(3) the company or entity performing the analyses;

(4) the analytic techniques or methods used;

(5) the results of such analyses; and

(6) the operating conditions existing at the time of sampling or measurement.

(d) Support information shall include, where applicable:

(1) copies of all reports required by this permit;

(2) all original strip chart recordings for continuous monitoring instrumentation;

(3) all calibration and maintenance records; and

(4) records of any required preventive maintenance and corrective actions that were implemented. Such records shall briefly describe what was done and indicate who did it. Such records may include, but are not limited to work orders, quality assurance procedures, quality control procedures, operator’s standard operating procedures, manufacturer's specifications or their equivalent, and equipment "troubleshooting" guidance.

(e) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

SECTION D.6 FACILITY OPERATION CONDITIONS FOR THE STANDBY DIESEL GENERATORS

Facility Description:

(g) Two (2) new standby diesel generators, rated at 635 hp and 700 hp, exhausting to stacks S162 and S163, respectively. These generators shall replace three (3) existing generators, each rated at 155 hp.

Emission Limitations and Standards:

D.6.1 Pollutant Emission Limitations

(a) Pursuant to 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules), each manufacturing line shall comply with the following limitations:

Facility	Pollutant Emission Limitations					
	PM/PM_{10}		VOC		CO	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Standby Diesel Generator, 635 hp	0.204	0.031	0.448	0.067	3.49	0.524
Standby Diesel Generator, 700 hp	0.276	0.041	0.494	0.074	3.85	0.578

PM/PM_{10} means that the PM limit and the PM_{10} limit are the same and shall be measured as the sum of the filterable and condensible fractions.

(b) In order to avoid the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), each manufacturing line shall comply with the following limitations:

Facility	Pollutant Emission Limitations			
	NOx		SO2	
	lb/hr	ton/yr	lb/hr	ton/yr
Standby Diesel Generator, 635 hp	15.2	2.28	10.3	1.55
Standby Diesel Generator, 700 hp	16.8	2.52	11.3	1.70

D.6.2 Production Limitations

The annual fuel usage from the standby diesel generators, determined on a twelve (12) consecutive month period, shall be limited as follows to demonstrate compliance with the annual emission limitations required by Operation Condition D.6.1:

Facility	Annual Fuel Usage Limitations, gallons / 12 consecutive month period
Standby Diesel Generator, 635 hp	7,800
Standby Diesel Generator, 700 hp	10,500

D.6.3 BACT Requirement

Pursuant to 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules), the three (3) existing standby generators, each rated at 155 hp, shall be permanently removed from service upon construction and operation of the generators described in this permit.

Recordkeeping and Reporting Requirements

D.6.4 Recordkeeping Requirement

(a) The Permittee shall maintain monthly fuel usage log to document compliance with the annual PM emission limitation required by Operation Condition D.6.2.

(b) Records shall be retained for a minimum period of five (5) years. Records of the previous three (3) years shall be kept at the source location and be made available within one (1) hour upon verbal request of an IDEM, OAM, representative. Records of the remaining two (2) years may be stored elsewhere provided they be made available to the OAM within thirty (30) days after written request.

(c) Records of required monitoring information shall include, where applicable:

(1) the date, place, and time of sampling or measurements;

(2) the dates analyses were performed;

(3) the company or entity performing the analyses;

(4) the analytic techniques or methods used;

(5) the results of such analyses; and

(6) the operating conditions existing at the time of sampling or measurement.

(d) Support information shall include, where applicable:

(1) copies of all reports required by this permit;

(2) all original strip chart recordings for continuous monitoring instrumentation;

(3) all calibration and maintenance records; and

(4) records of any required preventive maintenance and corrective actions that were implemented. Such records shall briefly describe what was done and indicate who did it. Such records may include, but are not limited to work orders, quality assurance procedures, quality control procedures, operator’s standard operating procedures, manufacturer's specifications or their equivalent, and equipment "troubleshooting" guidance.

(e) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE: IT HAS POTENTIAL TO EMIT 25 LBS/HR PARTICULATES ?_____, 100 LBS/HR VOC ?_____, 100 LBS/HR SULFUR DIOXIDE ?_____ OR 2000 LBS/HR OF ANY OTHER POLLUTANT ?_____ EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____
_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____
_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL*SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
MALFUNCTION REPORTED BY:
_____TITLE:_____
(SIGNATURE IF FAXED)
MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____

REV 3/96 FAX NUMBER - 317 233-5967 *SEE REVERSE

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO2, or two thousand (2,000) pounds per hour of any other pollutant; or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

Indiana Department of Environmental Management
Office of Air Quality
Compliance Branch

Quarterly Report

Source Name: Johns Manville International, Inc.
Source Address: 814 Richmond Avenue, Richmond, Indiana 47374
Mailing Address: P.O. Box 428 , Richmond, Indiana 47375-0428
Source Modification No.: CP 177-5873-00006
Source/Facility Lines 2, 3, and 6 Production Processes
Limits: Production Limits Required by Operation Condition D.3.2(d) and (e)

Year:_____________

Month	Production Facility	Production this Month, tons	Production Last 12 Months, tons	Production Limit, tons/12 consecutive months
	Line 2 Unbonded			31,536
	Line 3 Unbonded			31,536
	Line 3 Bonded			
	Line 6 Unbonded			17,520
	Line 6 Bonded[1]			
	Line 2 Unbonded			31,536
	Line 3 Unbonded			31,536
	Line 3 Bonded			
	Line 6 Unbonded			17,520
	Line 6 Bonded[1]			
	Line 2 Unbonded			31,536
	Line 3 Unbonded			31,536
	Line 3 Bonded			
	Line 6 Unbonded			17,520
	Line 6 Bonded[1]			

[1] The production of bonded product from Line 6 shall be limited to 6,240 tons per year, rolled on a monthly basis.

9 I certify that none of the hourly production limits established in Operation Conditions D.2.2, D.3.2, and D.4.2 of CP-177-5873 were exceeded this quarter.

Submitted by:____________________ Date:________________________________

Title / Position: __________________ Signature:_____________________________

Indiana Department of Environmental Management
Office of Air Management
Compliance Data Section

Quarterly Report

Company Name: Johns Manville International, Inc.
Location: 814 Richmond Avenue, Richmond, Indiana 47374
Permit No.: CP 177-5873-00006
Source/Facility: Standby Diesel Generators
Limits: Fuel Usage Limits Required by Operation Condition D.6.2

YEAR: _____

Month	Production Facility	Fuel Usage this Month, gallons	Fuel Usage Last 12 Months, gallons	Fuel Usage Limit, gallons/ 12 consecutive month period
	Standby Diesel Generator, 635 hp			7,800
	Standby Diesel Generator, 700 hp			10,500
	Standby Diesel Generator, 635 hp			7,800
	Standby Diesel Generator, 700 hp			10,500
	Standby Diesel Generator, 635 hp			7,800
	Standby Diesel Generator, 700 hp			10,500

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____